CS01-200 Digital Microscope User Manual

Prepared by Coolingtech Digital Engineering Dept.

2010.3.25

Thank you for purchasing our CS01-200 Digital Microscope, it is a slim type tool and can be easily used in different fields including:

1. Textile industrial for textile inspection
2. Printing inspection
3. Industrial inspection: PCB, Precision machinery…
4. Educational purpose
5. Hair examination
6. Skin examination
7. Microbiological observation
8. Jewelry & coin (Collections) inspection
9. Visual Assistance
10. Others

Currently we have two models of Digital Microscope: USB port and TV port formats.
The USB microscope must be connected to the computer and TV microscope be connected to visual device (N/P). User interface is very friendly and you can do the Measure work easily.

You can find more information of the product on this manual.

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How to install the measurement software

Parts of Microscope

Specification

Image CMOS Sensor

Controller High Speed DSP (Driver Free available)

Focus Range 15mm ~ 40mm

Snap Shot Software and Hardware

Video Capture Resolution 0.3M.

Built-in 8 White-light LED and adjustable illumination ensure the magnified images are clear and bright

Still Image Capture Resolution 640*480

Frame Rate 30 f/s under 600 LUX Brightness

Digital Zoom 5X Sequence Mode

Brightness Control Manual adjustment

Magnification Range 25 X ~ 200X (Manually)

Power Supply USB Port (5V DC)

USB 2.0 & USB 1.1 Compatible

Operation System Windows XP, Vista, Win 7 32 bit and 64 bit.

Language: English, Chinese and other language by selection

System Requirement: Pentium Computer with 700M Hz & above,
20M HD Space CD ROM Driver, 64MB RAM, Direct X VGA Card

CD disk Driver and Micro-Measurement Tool

Product dimension 112 mm (L) X 33 mm (R)
Product net weight: 380g
Available color: Matting black, UV black; and other colors.

Notes before use

1. Don’t dissemble the digital Microscope or change the interior parts, it can cause damage.

2. Don’t clean the Microscope with alcohol organic solvents

3. Don’t touch the lens with your fingers.

4. Avoid outdoor use if possible.

5. Storage temperature , 0°C ~ 40°C,Humidity:45%RH ~ 85RH%.

6. In case the product gets wet, leave PC connection immediately. And do not dissemble or dry by hair dryer. Send to repair center if the digit microscope was effected by liquid or other elements.

7. Measurement Data only for reference.

Product Outlook & Standard parts

1. Digital Microscope (1pcs)

2. USB 2.0 cable

3. Metal fixed Stand (1pcs)

4. CD ROM (Driver, Measurement software, User Manual)

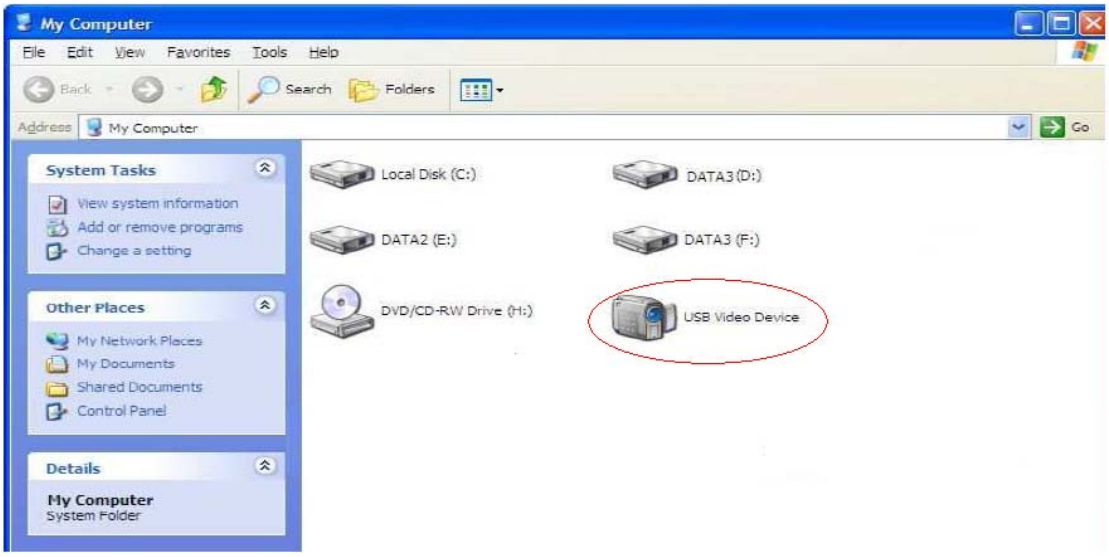
Hardware system requirements

Windows 2000、XP、VISTA、WIN7 Pentium 1G, Celeron, AMD 1G & above, 128MB Memory, 150MB Hard Disc memory space,16-bit & above VGA ,CD-ROM, USB2.0 or USB1.1.

How to install the Driver

CS01-200　Digital Microscope is a free Driver Product，it can be worked immediately after connected to the computer with operation system above win2000 version.

1. Connect the Portable digital microscope by USB2.0 cable to your computer, double click ‘my computer’ icon on your computer desktop, below interface will be shown up.



2. Double click the **Video device icon** as above red marked in your computer. Now it is ready to use.

If you can’t find the Video device, or if your computer can’t recognize it, please follow below steps to install the driver.

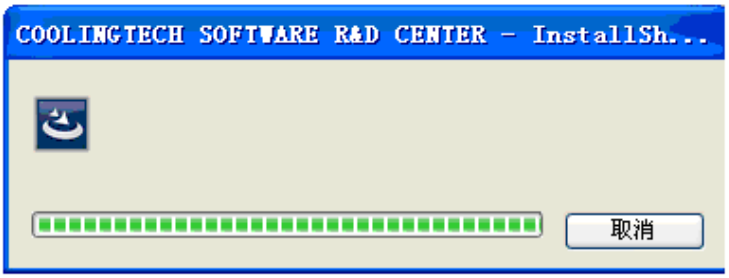
Insert the attached CD, system will auto run to the interface as below and follow the steps to complete the installation:
(NOTE：If the computer can’t auto run the disc, you need to operate

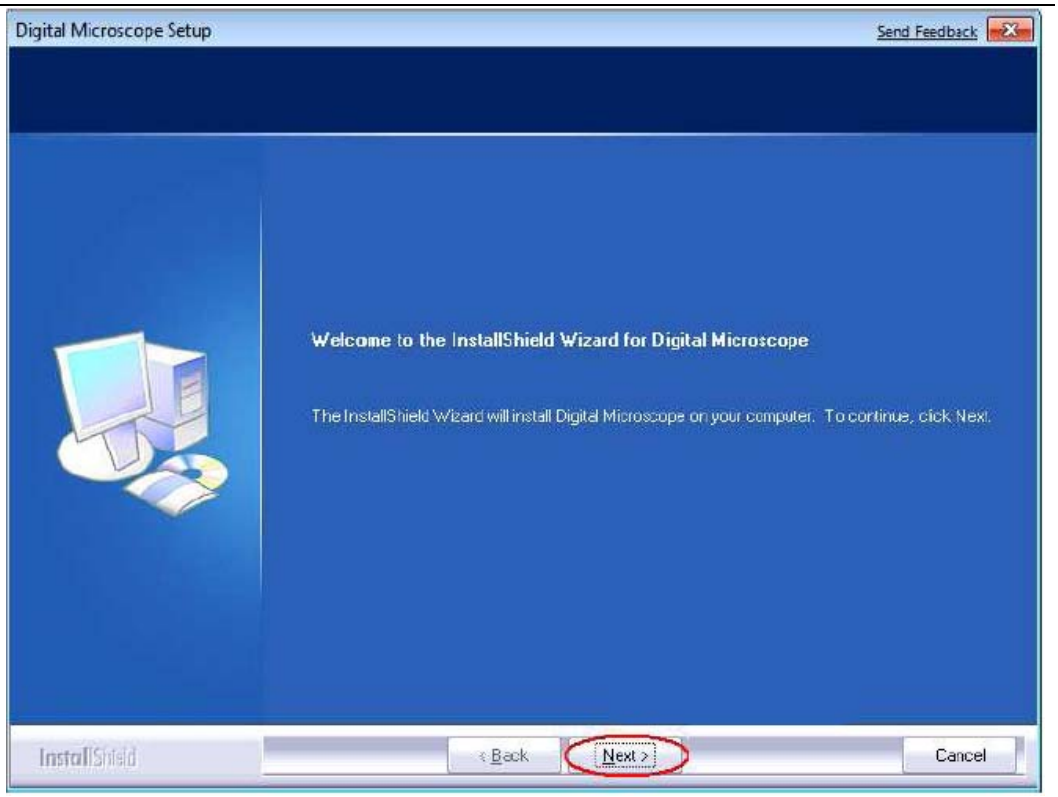
manually by click “My Computer” → ”DVD/CD Driver” → run”AUTORUN.EXE”)

1. Driver installation

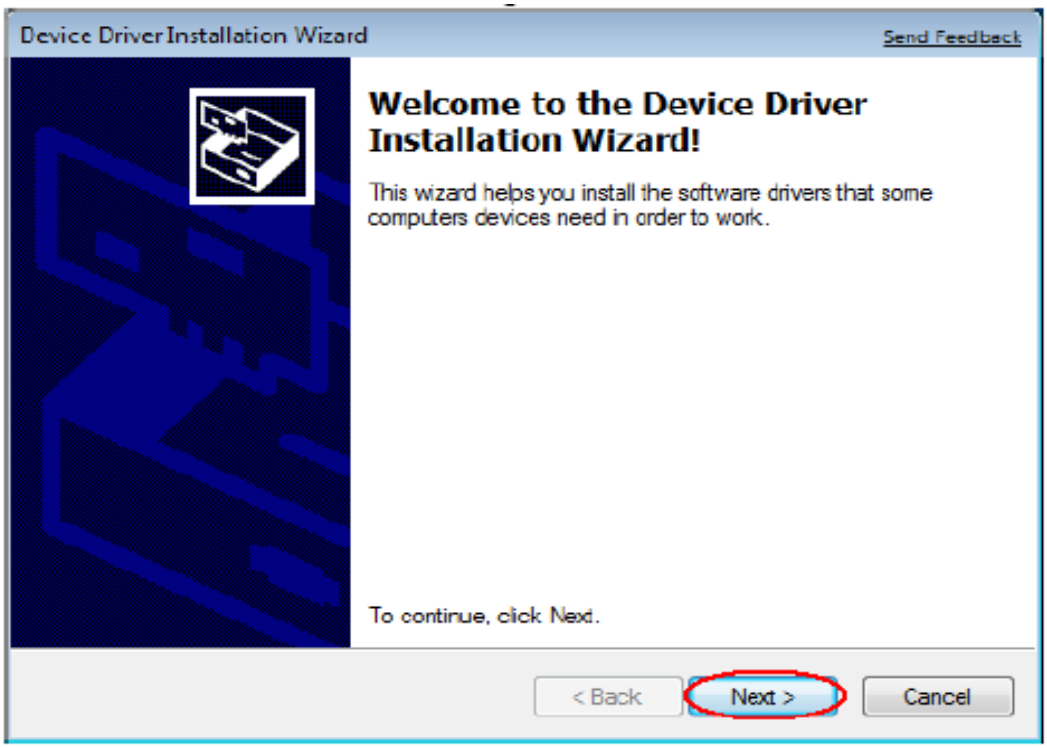
1Click

to continue, the screen will show the installation progress.




Digital Microscope Setup
Send Feedback
Welcome to the InstallShield Wizard for Digital Microscope
The InstallShield Wizard will install Digital Microscope on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

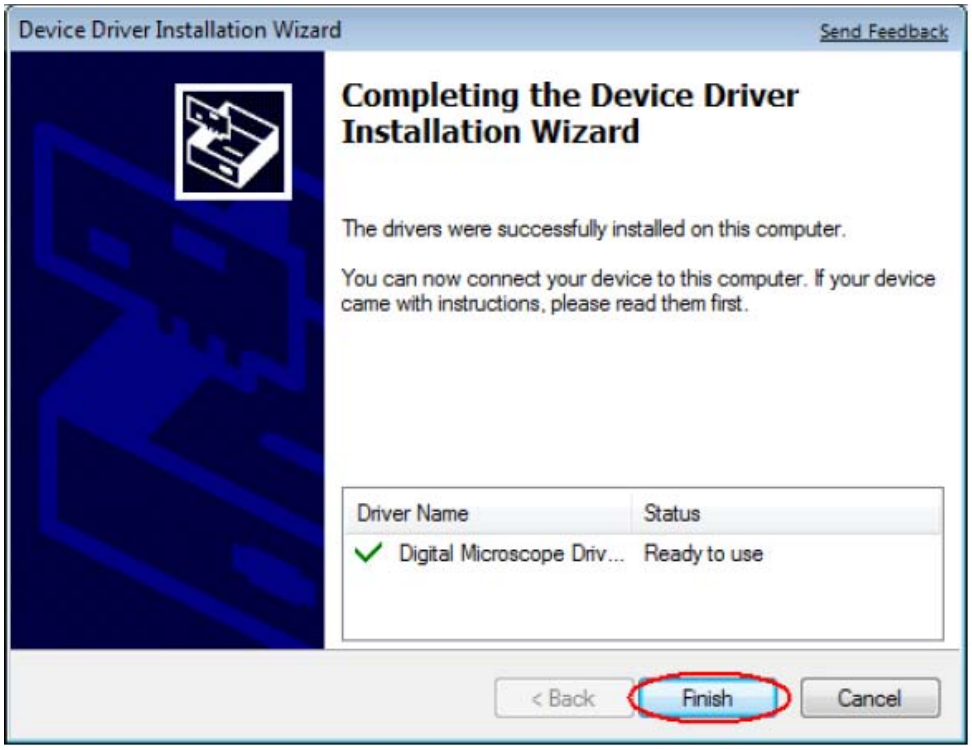
Click“next”to continue，as followings:


Device Driver Installation Wizard
Send Feedback
Welcome to the Device Driver Installation Wizard!
This wizard helps you install the software drivers that some computers devices need in order to work.
To continue, click Next.
< Back
Next >
Cancel

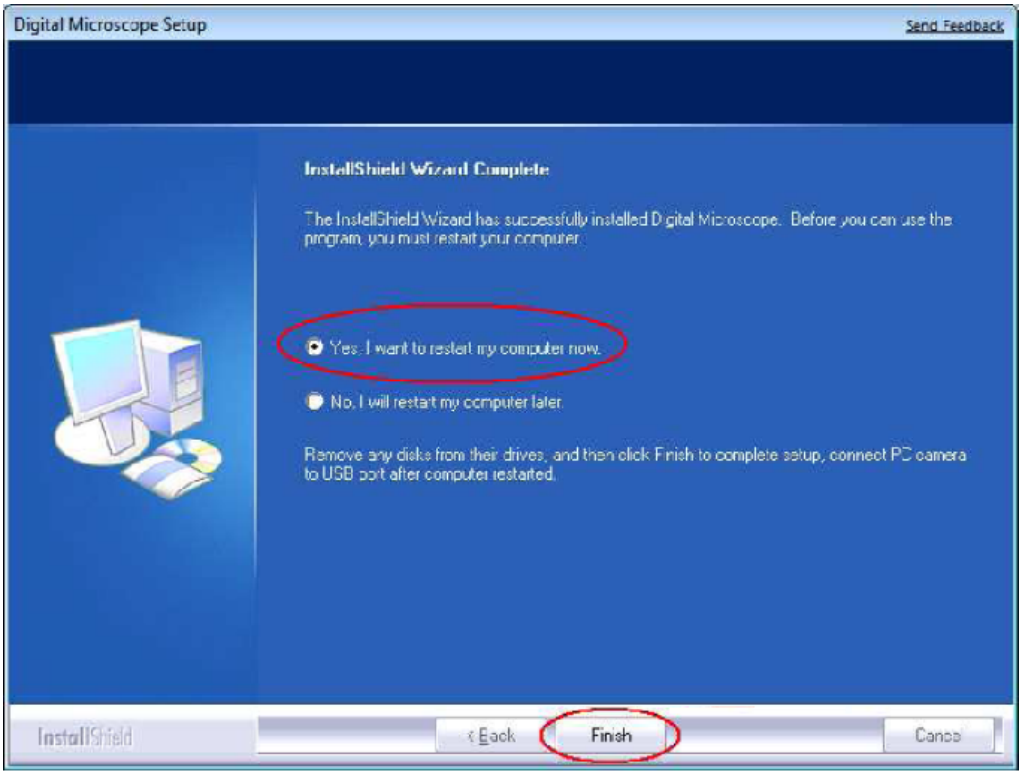
Click“next”to continue，as followings:

Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

Click “continue Anyway”,as followings:


Device Driver Installation Wizard
Send Feedback
Completing the Device Driver Installation Wizard
The drivers were successfully installed on this computer.
You can now connect your device to this computer. If your device came with instructions, please read them first.
Driver Name
Status
Digital Microscope Driv...
Ready to use
< Back
Finish
Cancel

Click“Finish”to continue，as followings


Digital Microscope Setup
Send Feedback
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Digital Microscope. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup, connect PC camera to USB port after computer restarted.
InstallShield
< Back
Finish
Cancel

Select 'Yes, I want to restart my computer now', and click "finish".

After restart your computer, Plug-in the USB port of Digital Microscope into Computer USB port. Following the user guide by steps and complete by click "Next" -> "Continue anyway" -> "Finish".

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
Digital Microscope
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

Hardware Installation
The software you are installing for this hardware:
Digital Microscope
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

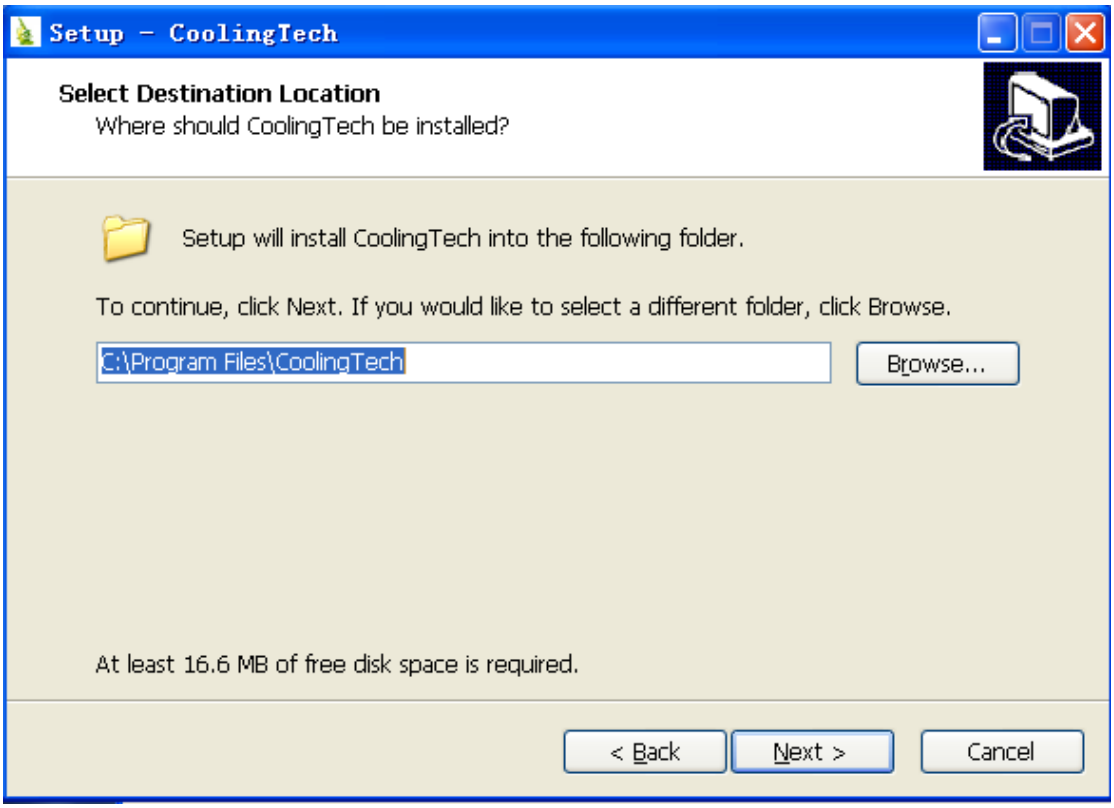
2 Measurement installations:

1 Click

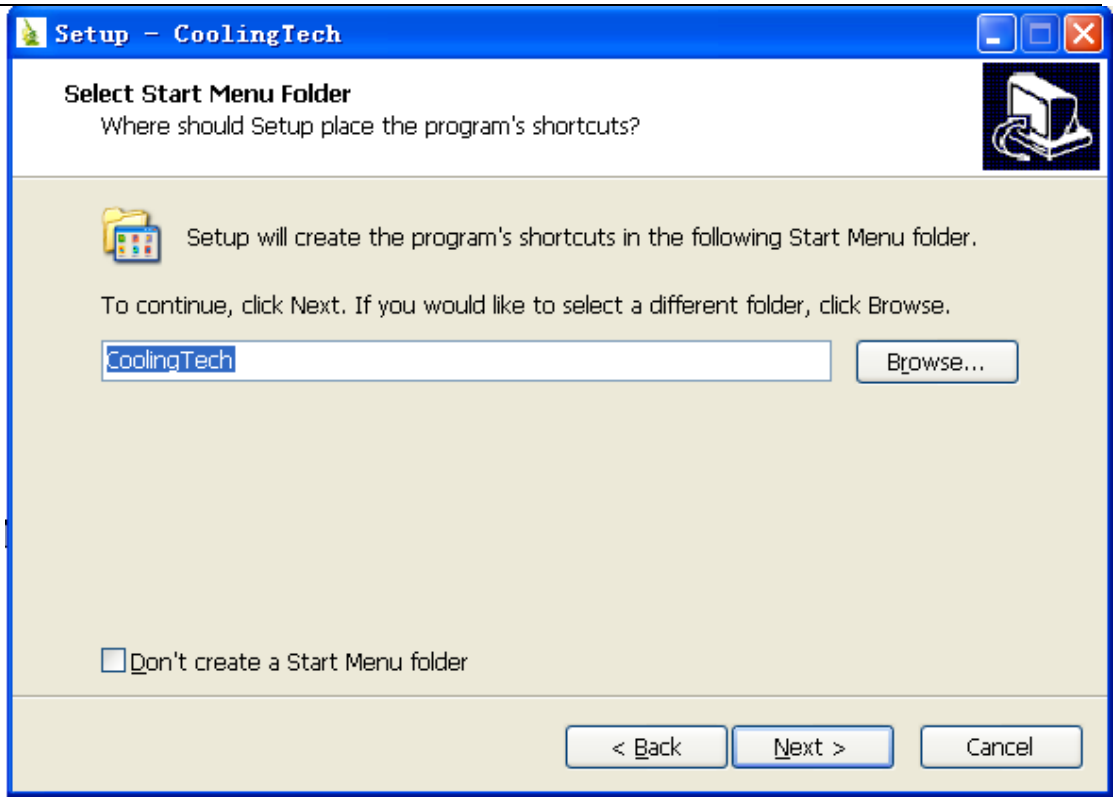
to continue, as followings

Setup - CoolingTech
Welcome to the CoolingTech Setup Wizard
This will install CoolingTech version 2.0 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

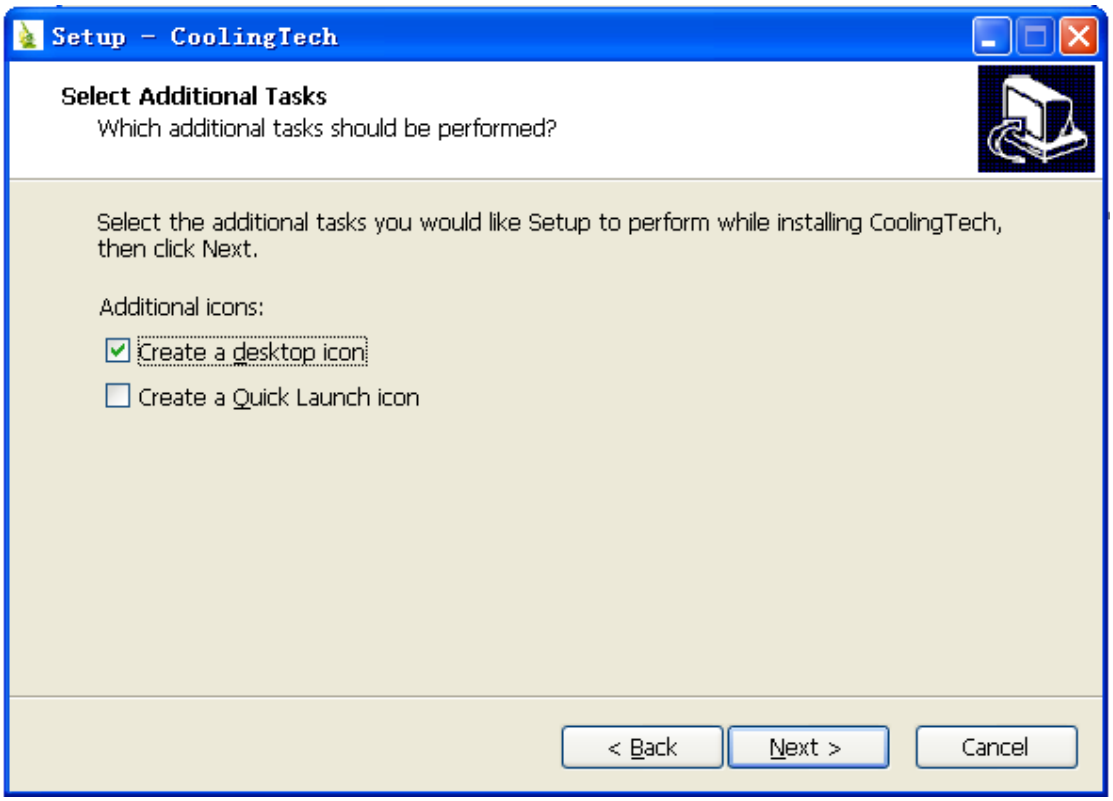
2 Click “next” to continue, as followings


Setup - CoolingTech
Select Destination Location
Where should CoolingTech be installed?
Setup will install CoolingTech into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\CoolingTech
Browse...
At least 16.6 MB of free disk space is required.
< Back
Next >
Cancel

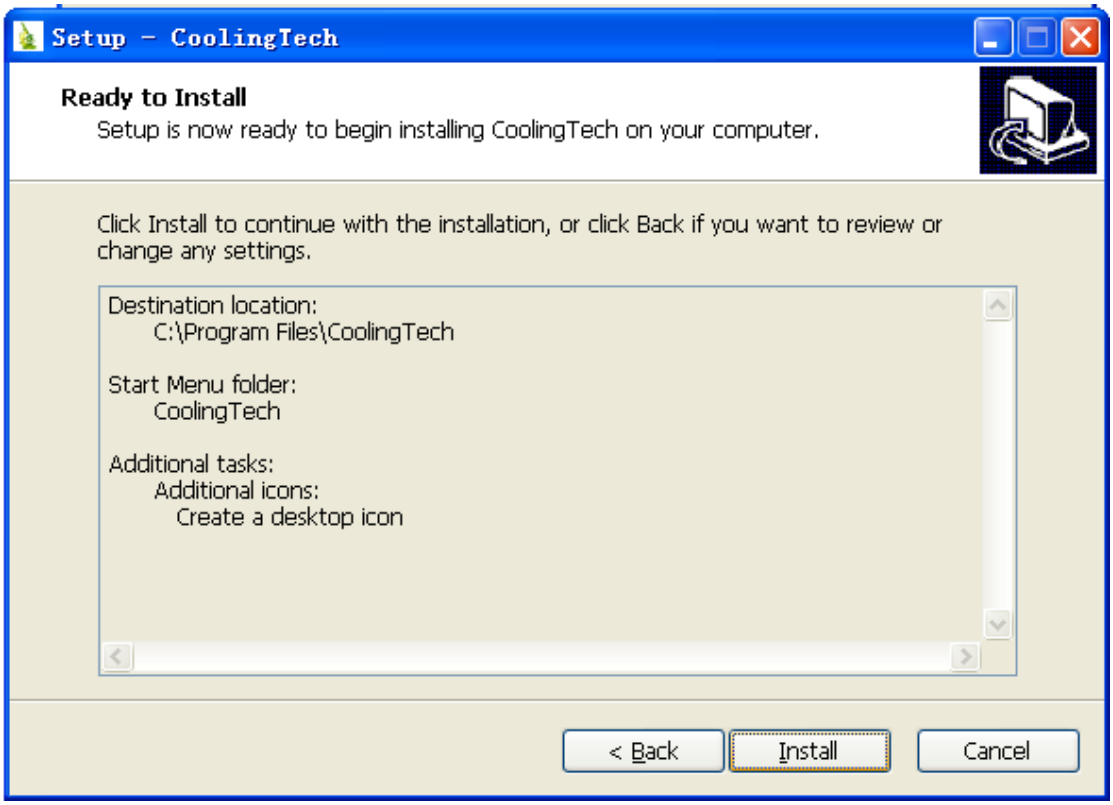
3. Click “next” to continue, as followings


Setup - CoolingTech
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
CoolingTech
Browse...
Don't create a Start Menu folder
< Back
Next >
Cancel

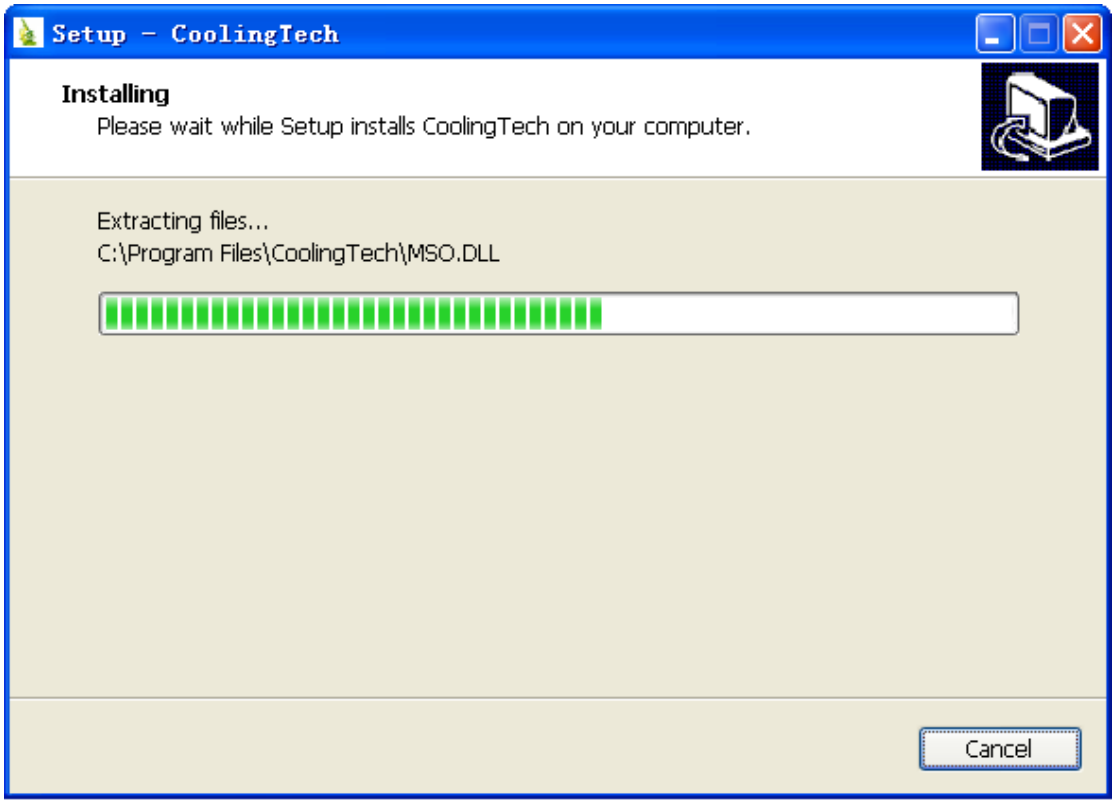
4. Click “next” to continue, as followings


Setup - CoolingTech
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing CoolingTech, then click Next.
Additional icons:
Create a desktop icon
Create a Quick Launch icon
< Back
Next >
Cancel

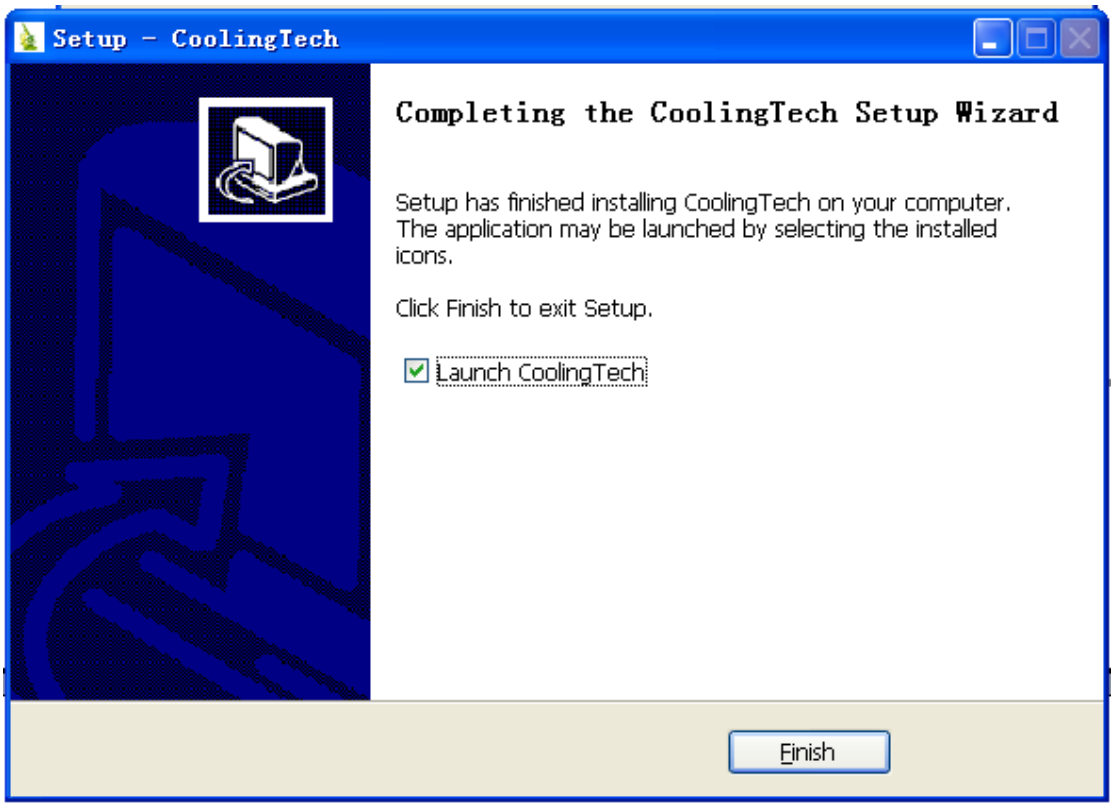
5. Click “next” to continue, as followings


Setup - CoolingTech
Ready to Install
Setup is now ready to begin installing CoolingTech on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\CoolingTech
Start Menu folder:
CoolingTech
Additional tasks:
Additional icons:
Create a desktop icon
< Back
Install
Cancel

6 Click “Install” to continue, as followings



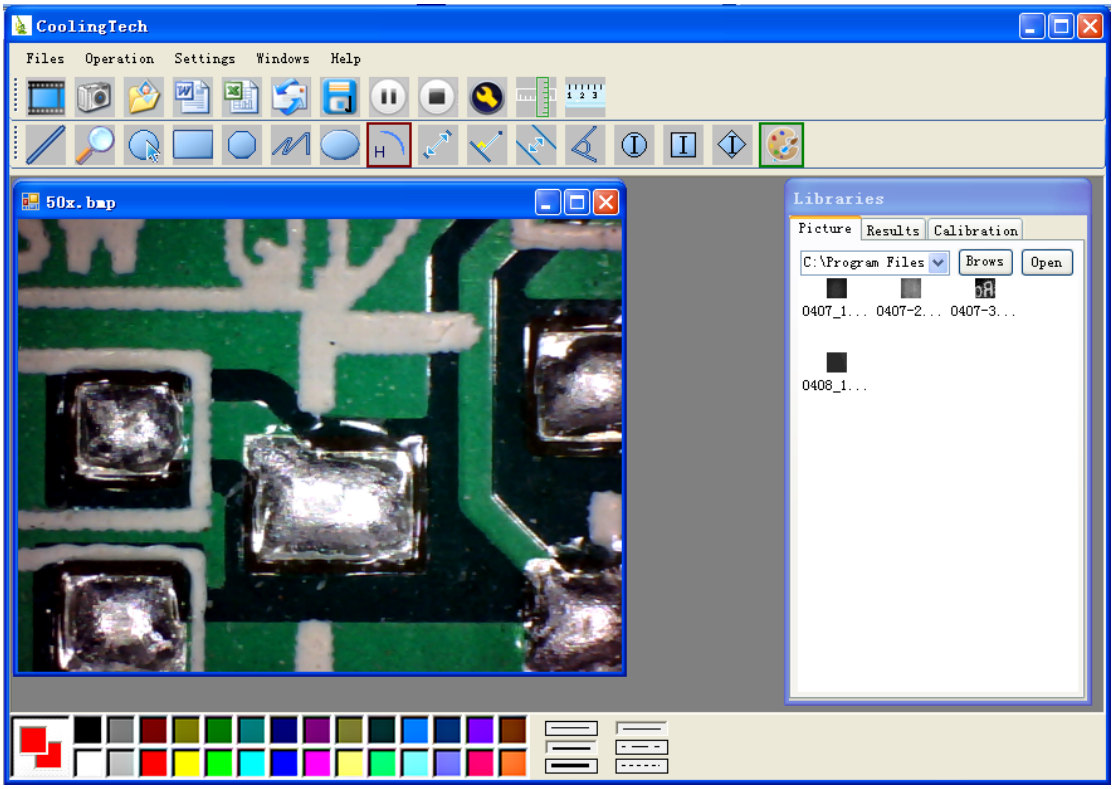
Wait a few seconds while the installation taking place.


Setup - CoolingTech
Completing the CoolingTech Setup Wizard
Setup has finished installing CoolingTech on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch CoolingTech
Finish

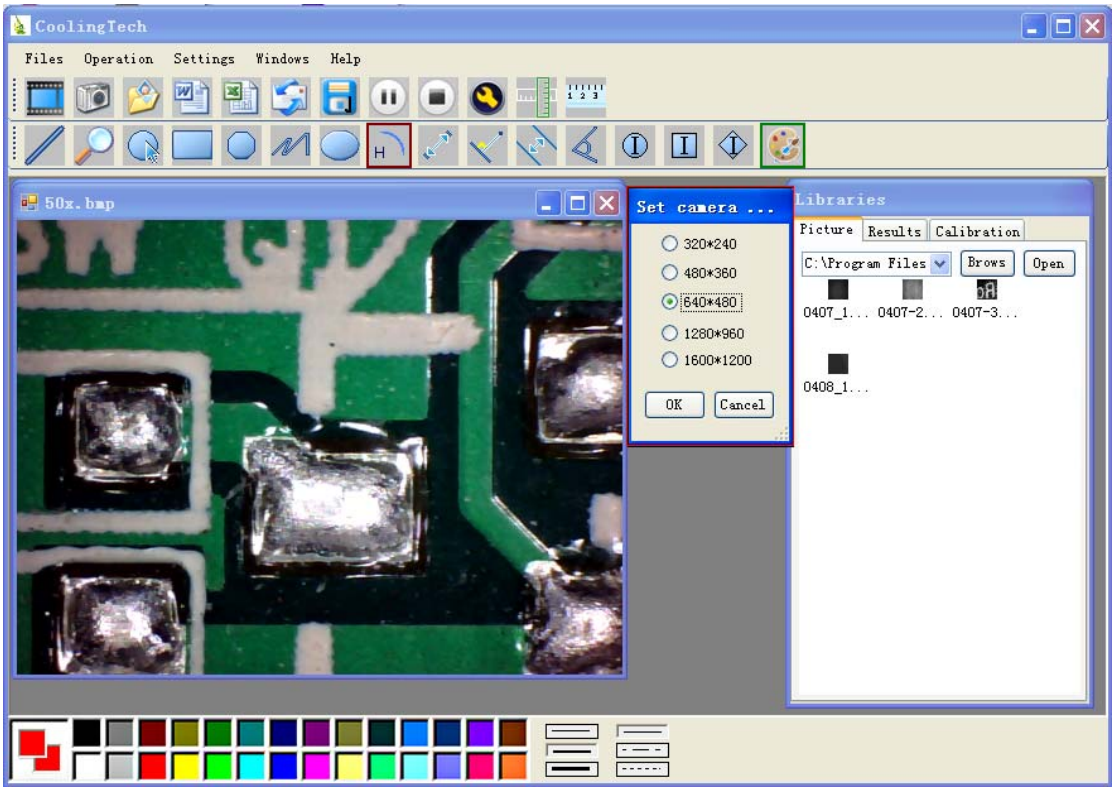
7.Click “Finish” and the installation completes.

8.After the installation completes, double click at computer desktop to start using the software.

Plug-in the devices, Display in operation window

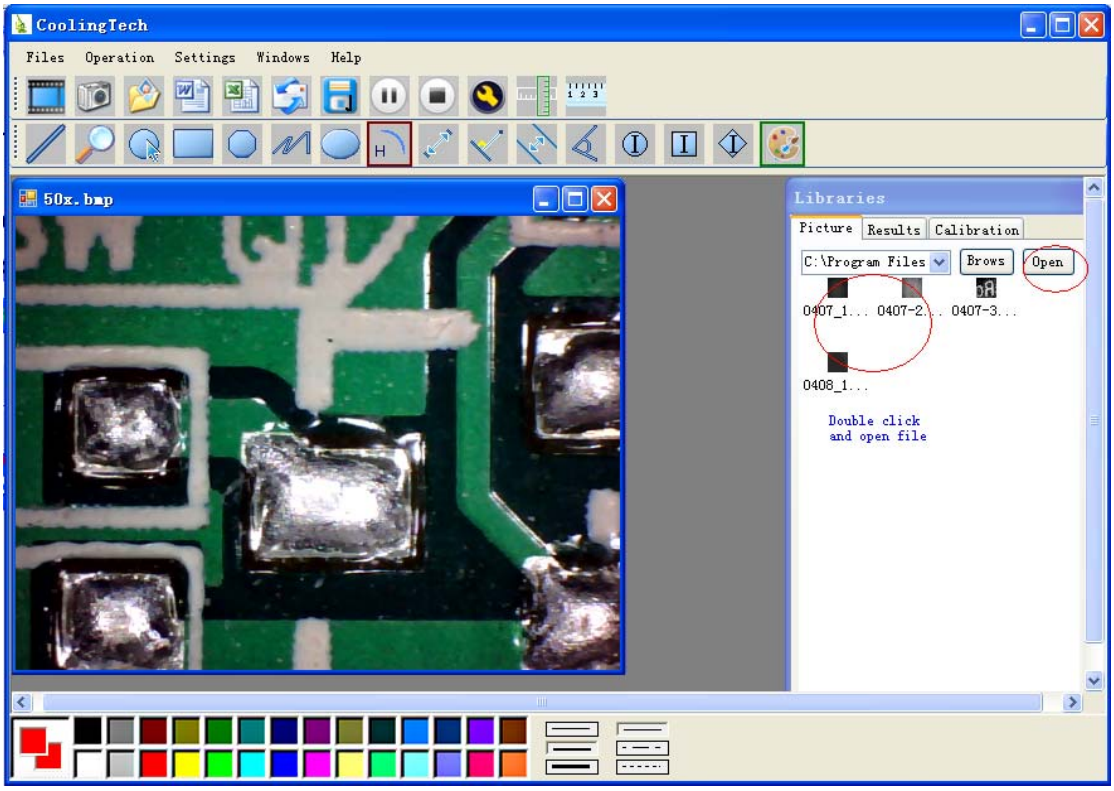


9 Click ,open the operation system

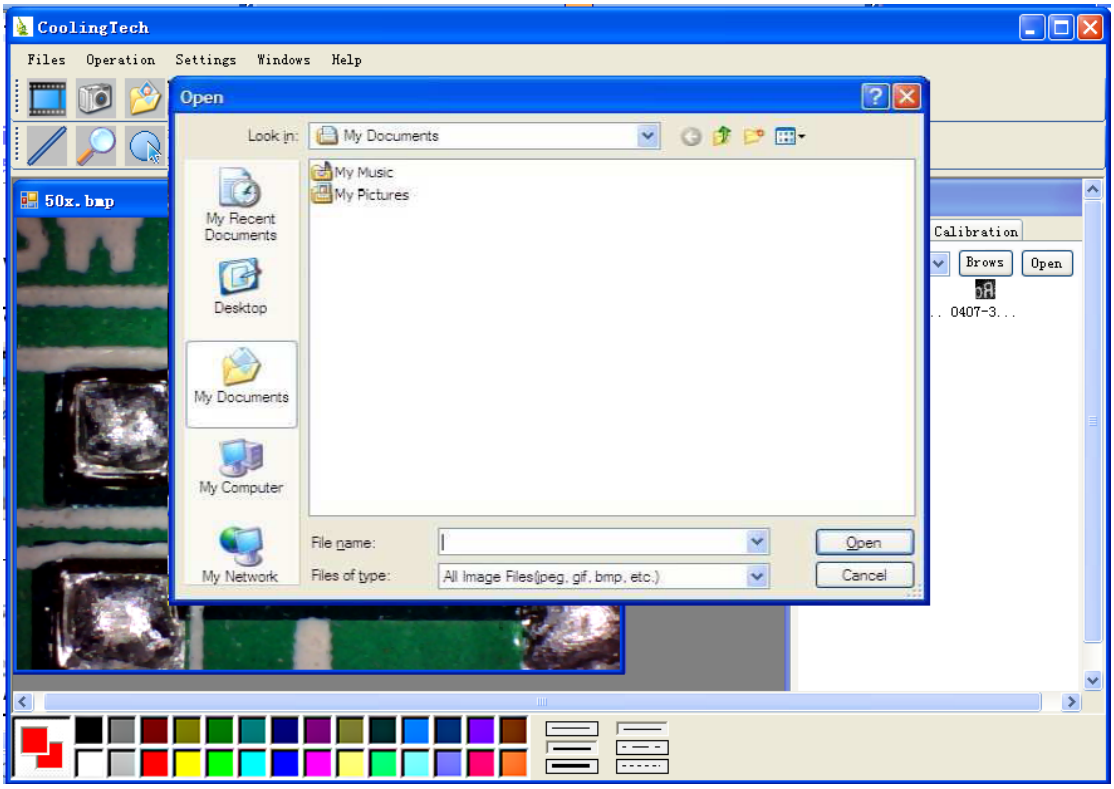


Choose the Image resolution from 320*240 to 1600*1200, default at VGA Mode640*480

10 Click to use measurement function.



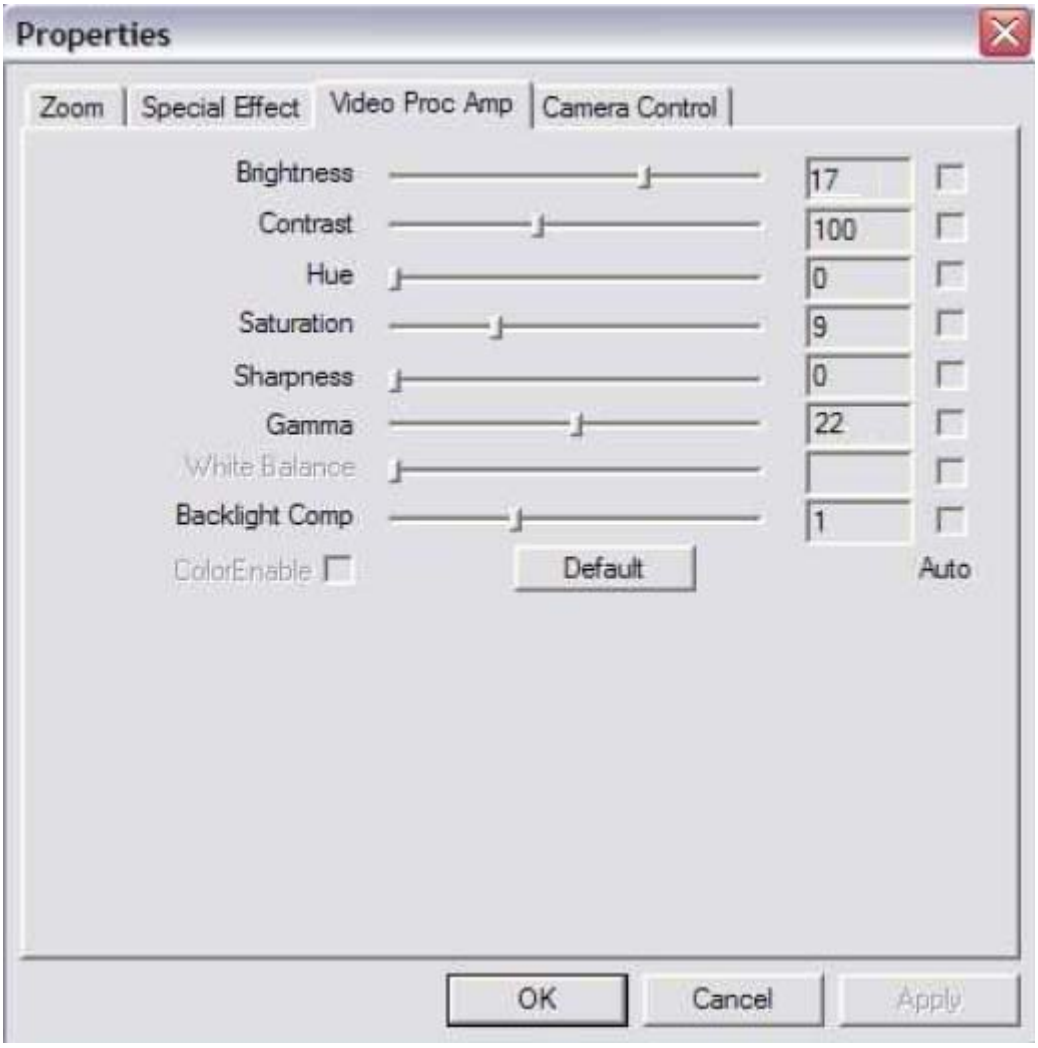
11 Click to open pictures, and click to save pictures



12

Video PLAY(Pause) ,STOP

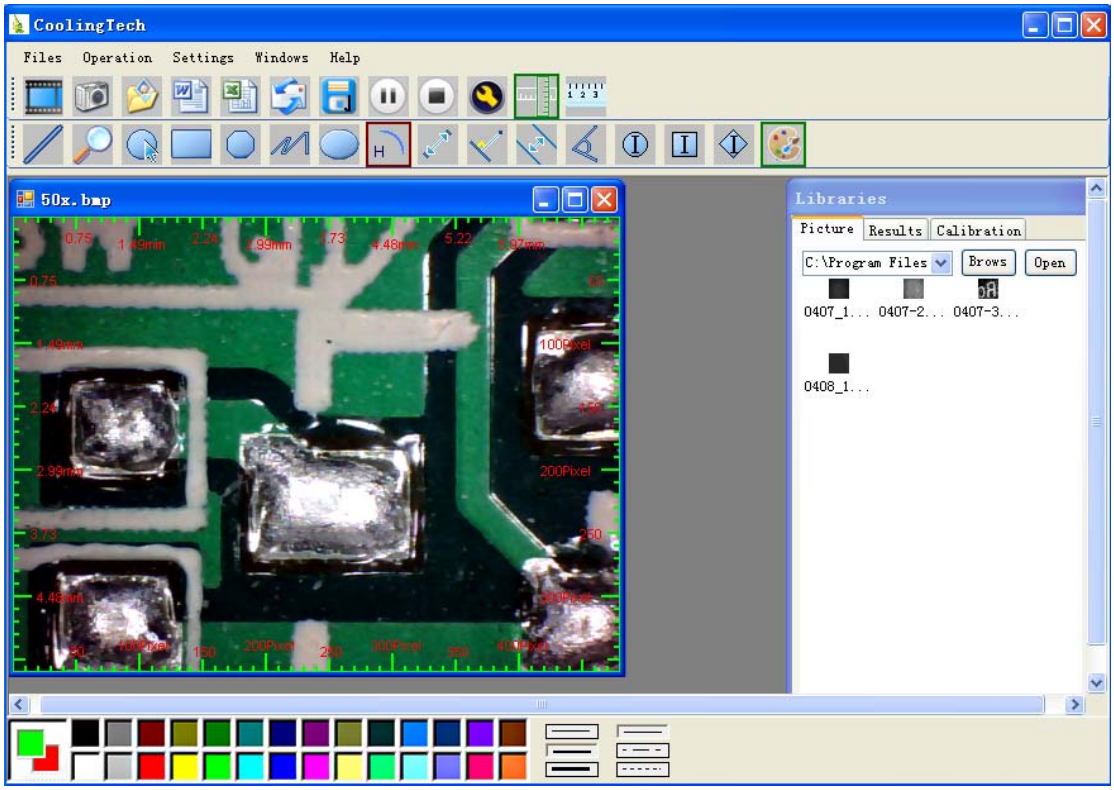
13 Image Parameter including Image setting and special effects



15

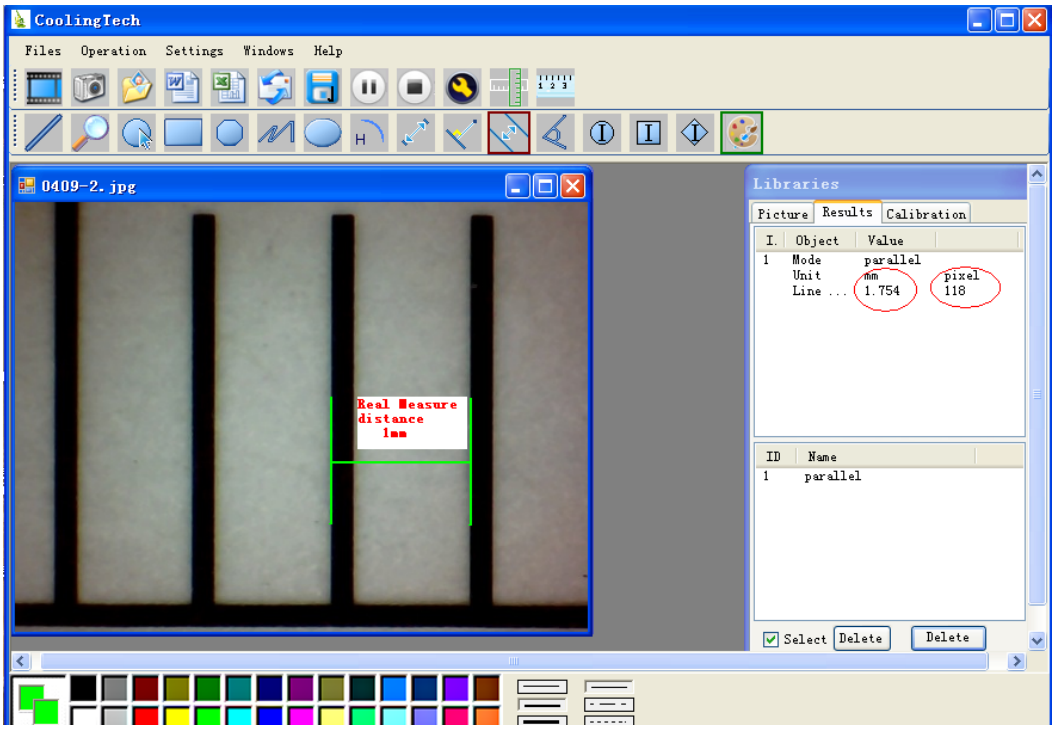
Magnifier

16 Click Ruller, as followings

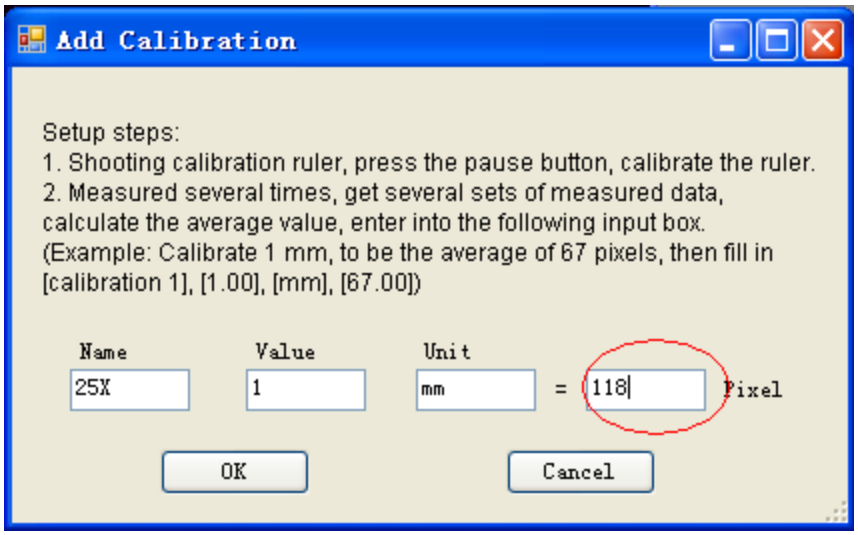


17 Click , start calibration make sure certain accuracy.

Our experience told us that measurement could be controlled at 99% high precision. Measure tolerance could be caused from human eye distortion and defocus. More practice is helpful to measurements.

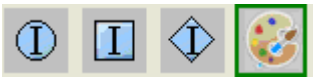


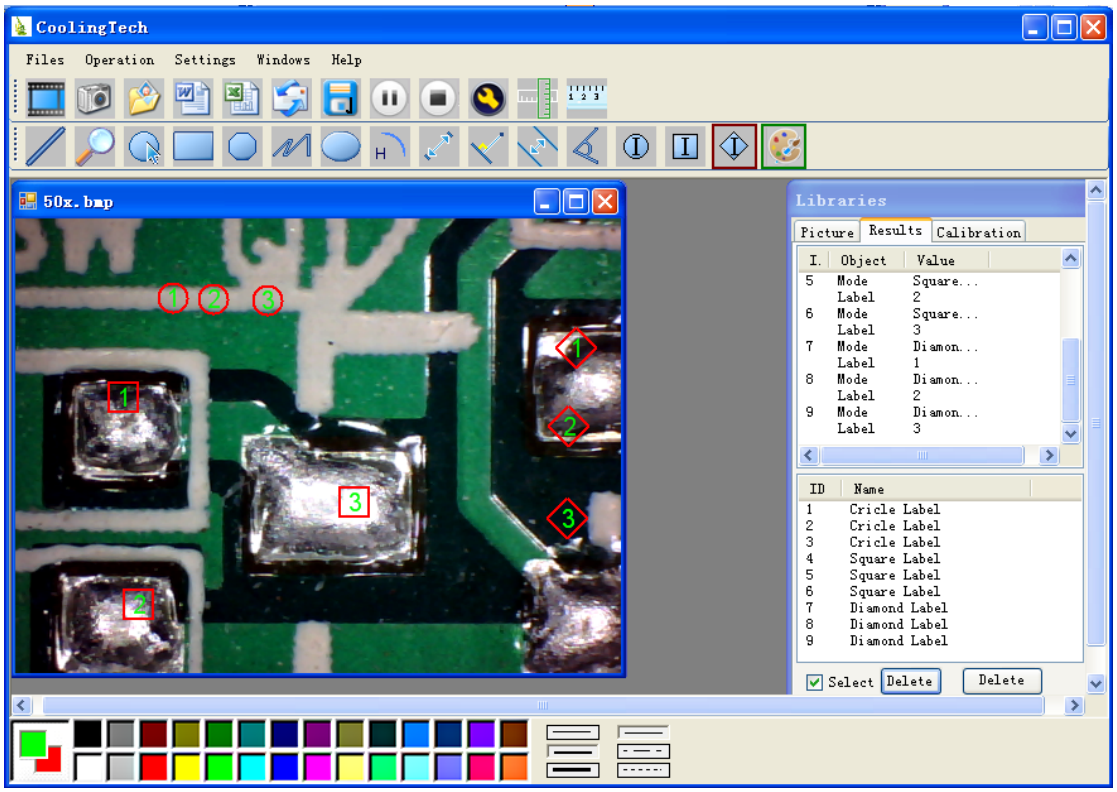
18 Key in the Measure data(Pixel),Unit, and Click' OK'



Warning:

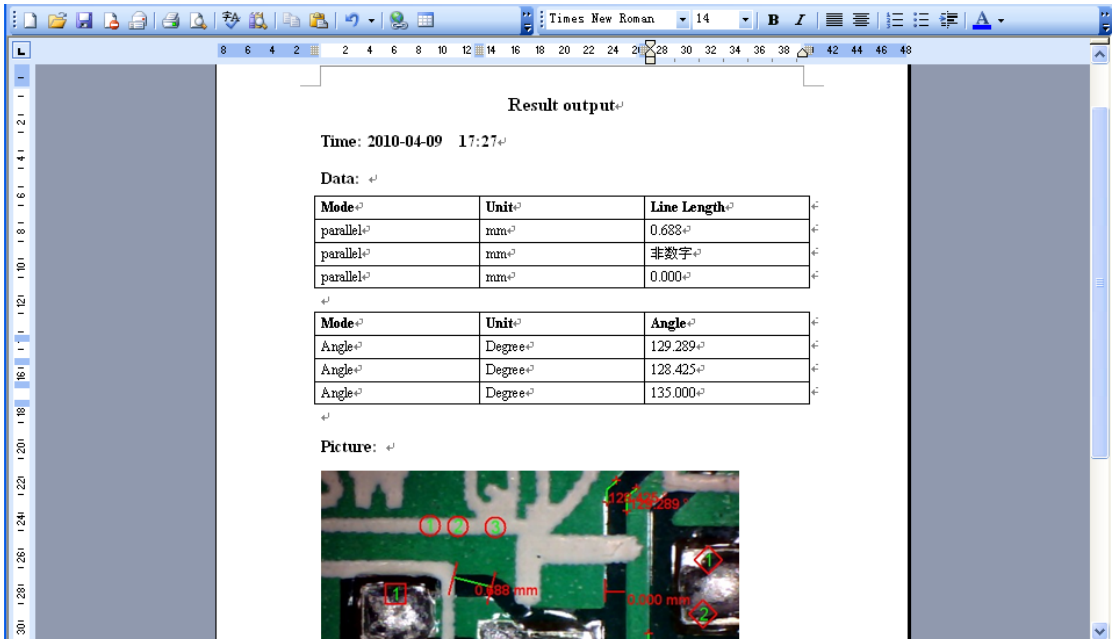
Please do calibration again once Magnification Ratio changed.

19  Color setting of display character



20 Click to export word or excel format.

Example: Measure data under word file



Result output

Time: 2010-04-09 17:27

Data:

Mode	Unit	Line Length
parallel	mm	0.688
parallel	mm	非数字
parallel	mm	0.000

Mode	Unit	Angle
Angle	Degree	129.289
Angle	Degree	128.425
Angle	Degree	135.000

Picture:

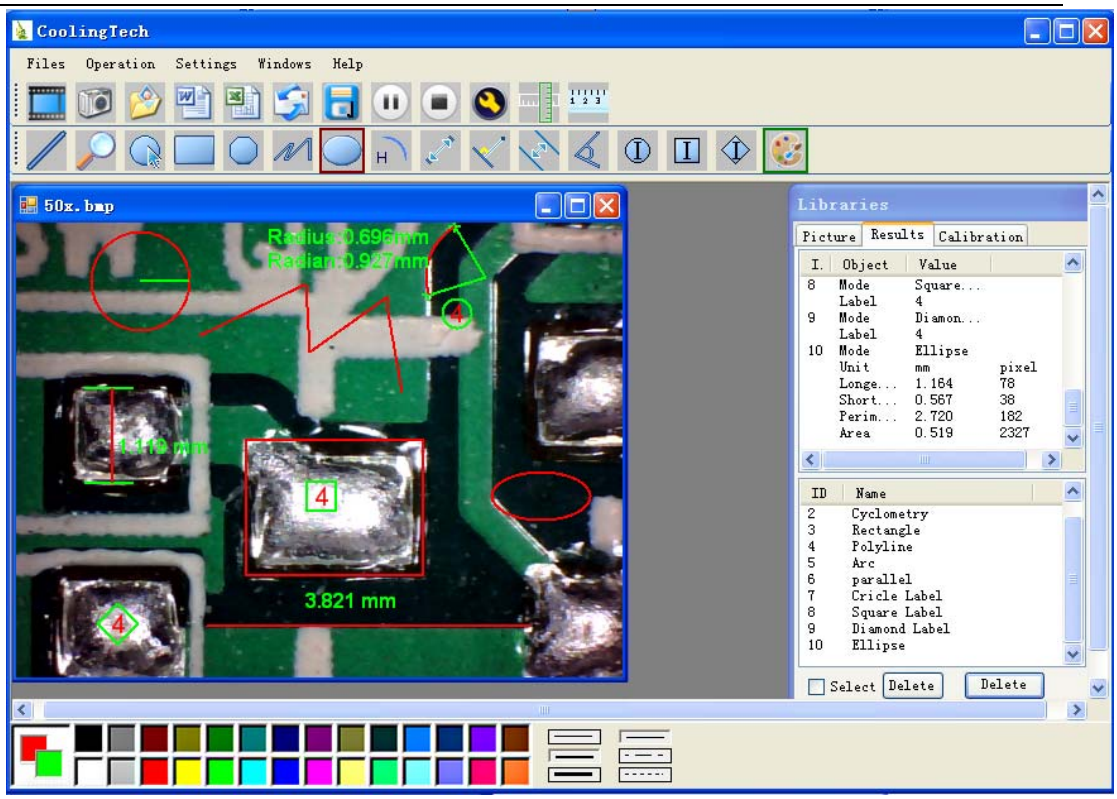
From Left to right:

Line ring Square Polygon Set-line Length

Oval Arc Point to Point distance Point to Line distance

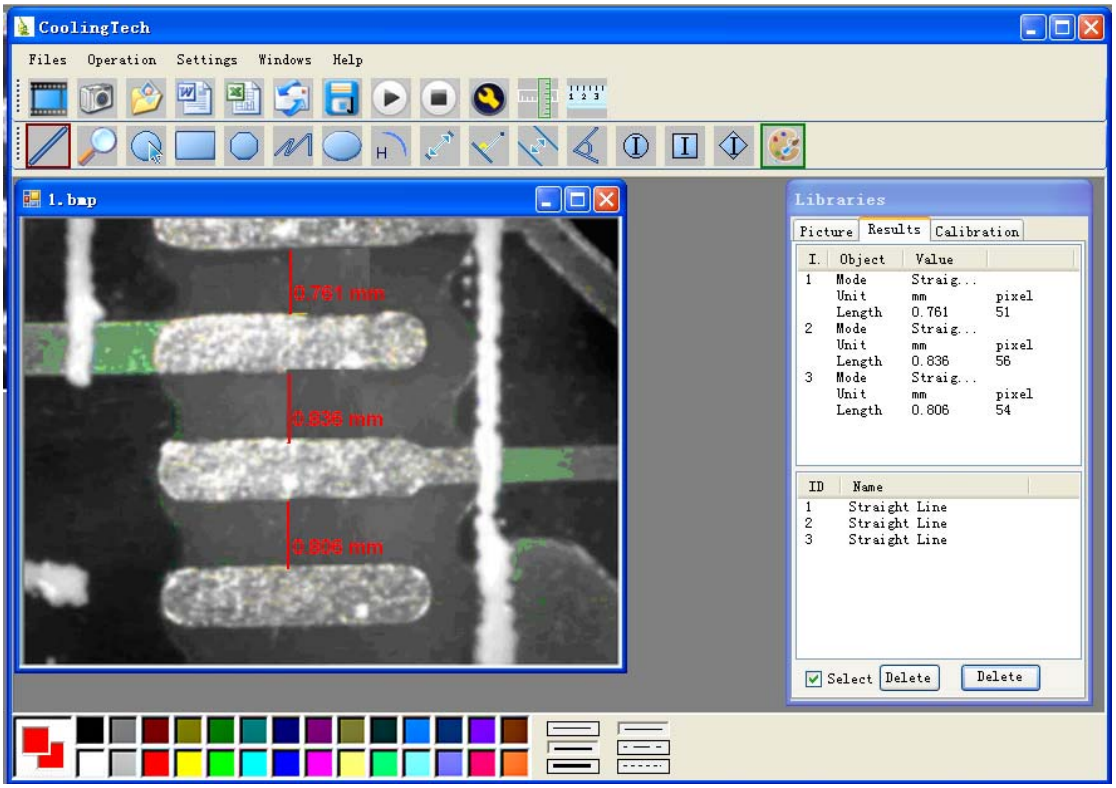
Parallel line Angle

(as below show)



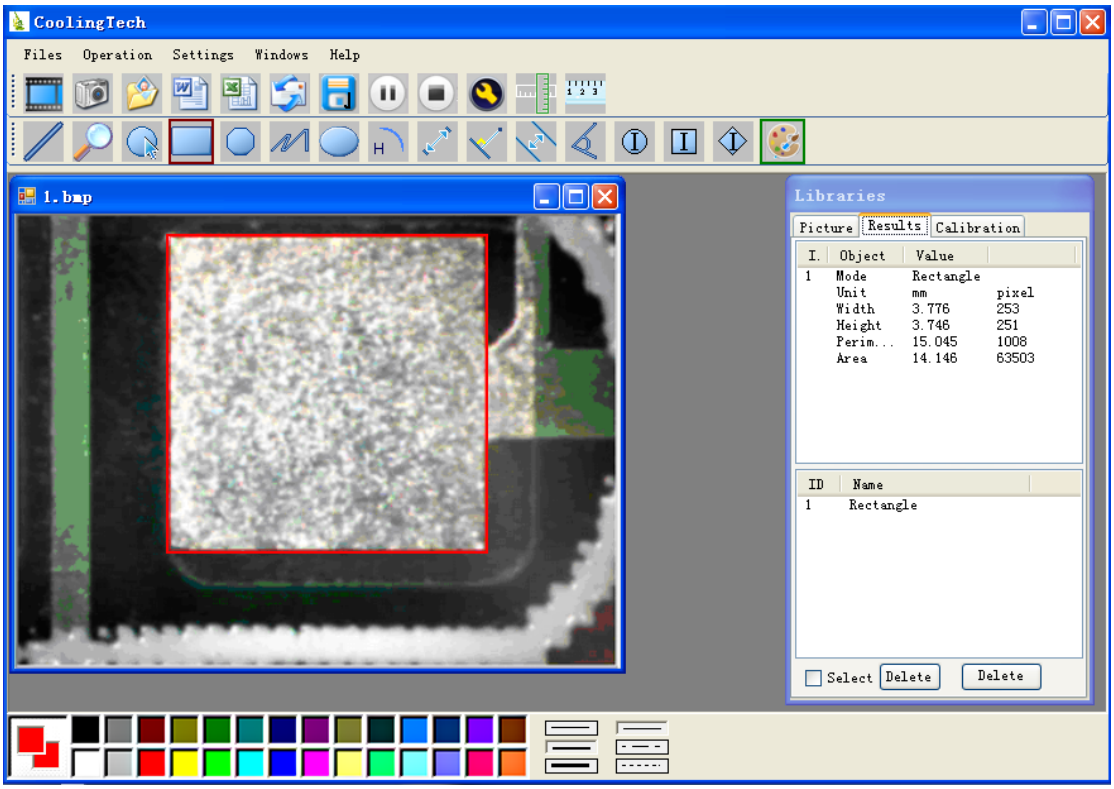
For example 1

Line measurement:



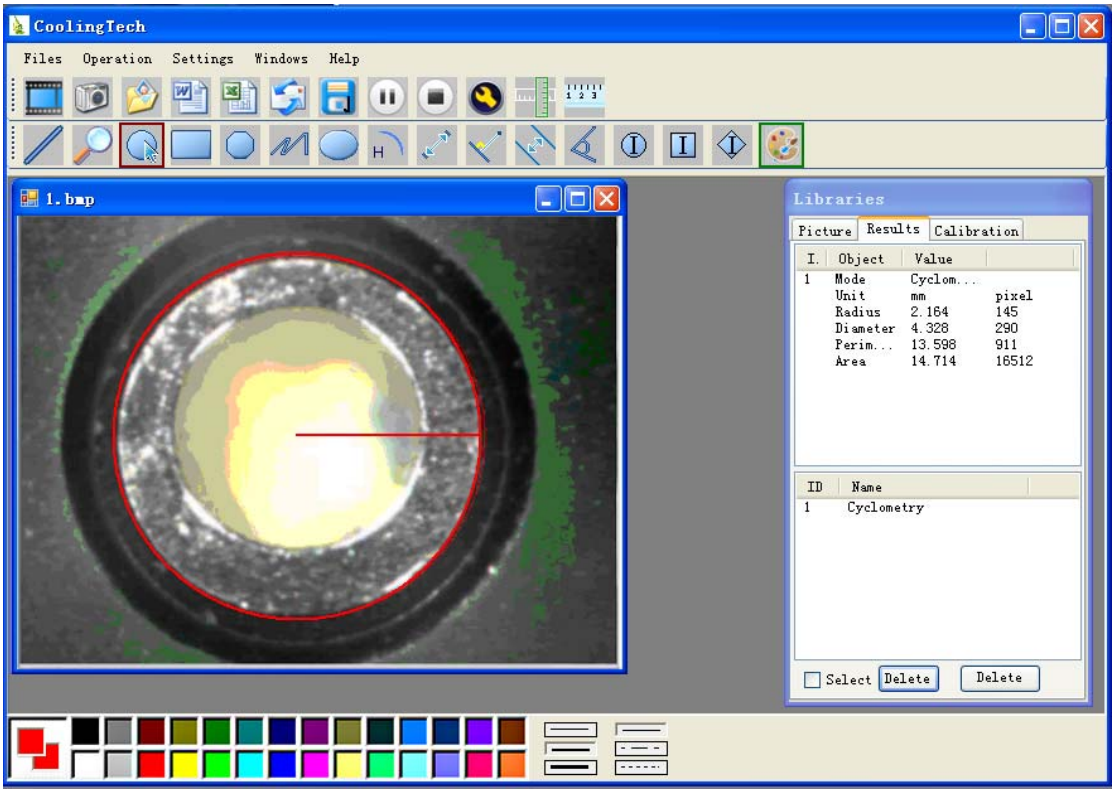
For example 2

Rectangular measurements:



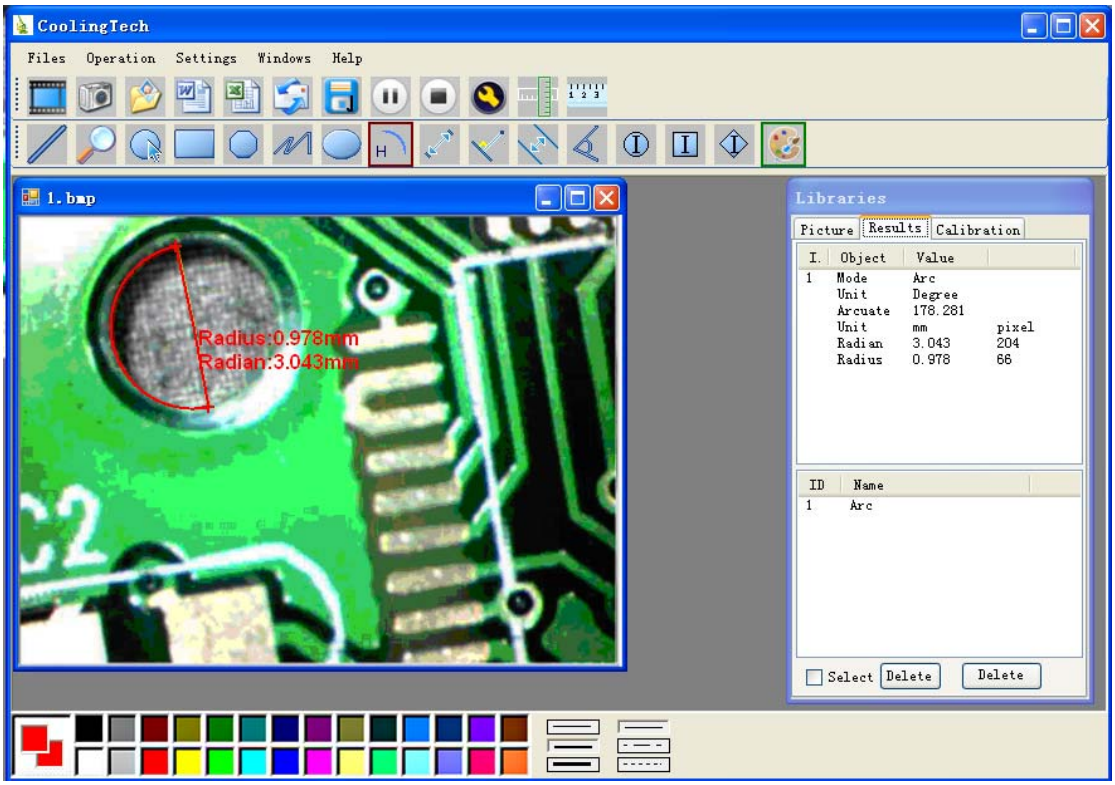
For example3

Ring measurements:



For example 4

Arc measurements:



3Please click **to Continue when the NET Framework2.0 is necessary**